QK
473
H3H38
BOT

NEWSLETTER
of the
Hawaiian Botanical Society

c/o DEPARTMENT OF BOTANY
UNIVERSITY OF HAWAII
HONOLULU 14, HAWAII

Volume V
Numbers 4 and 5
October and December 1966
(Issued April 1967)

SMITHSONIAN
AUG 10 2000
LIBRARIES

IMPRESSIONS OF THE 11TH PACIFIC SCIENCE CONGRESS AND JAPAN

Alvin K. Chock [1]

Introduction:

Thanks to the leg-work of Martin Vitousek of the Hawaii Institute of Geophysics, members of the Hawaiian Academy of Science were able to fly to Japan at very nominal cost. The Academy chartered two Japan Air Lines flights and partially filled another aircraft. The flights were uneventful and were made pleasant by the hard-working cabin crews.

Society members who attended the 11th P.S.C. included: University of Hawaii - Alvin K. Chock, Dr. Maxwell S. Doty, Dr. Paul Ekern, and Dr. Dieter Mueller-Dombois; B.P. Bishop Museum - Dr. Roland W. Force, Dr. J.L. Gressitt, Dr. Harold St. John, Miss Amy Suehiro, and Dr. Douglas E. Yen; State of Hawaii - Clifton J. Davis; H.S.P.A. - Dr. Louis G. Nickell, Dr. Constance E. Hartt; P.R.I. - Kanjyo Sakimura; Smithsonian Institution - Dr. F.R. Fosberg, Dr. M.H. Sachet; University of British Columbia - Dr. Vladimir J. Krajina, Dr. T.M.C. Taylor; Redlands University - Dr. George J. Hollenberg; Miami University - Dr. H.A. Miller; National Park Service - Dr. George C. Ruhle; University of Pittsburgh- Dr. Alexander Spoehr; University of Malaya - Dr. Benjamin C. Stone; Hopkins Marine Station of Stanford University - Dr. Isabella A. Abbott; Marine Research Institute, National Biological Institutes of Indonesia - Aprilany Soegiarto.

---

[1] Plant Quarantine Division, Agricultural Research Service, U.S. Department of Agriculture, and Lecturer in Botany, University of Hawaii.

SHOUT
SHARE
IT

11th Pacific Science Congress:

There were 5,905 Congress members, of which 2,200 were from foreign countries. Of these 330 were from Hawaii, which was listed as a separate foreign country from the U.S.A. The large size of the Congress necessitated separation into twelve sections, with most botanists being in Section V, Biology, although others were registered for (II) Oceanography, (VI) Agriculture, Forestry, Animal Science, and Conservation, and (V) Fisheries, Marine and Freshwater Science. Other meetings held concurrently with the Congress included three symposia of the International Organization of Plant Biosystematists, and a general meeting on different aspects of the International Biological Program.

The 12th Pacific Science Congress, to be held in Canberra, Australia in 1971 will be limited to 1,000 participants. The means by which this limitation will be imposed are not yet known. Perhaps the limitation is necessitated by the accommodations available in that city.

The greatest benefit derived from the Congress was from meeting old friends and making new friendships with colleagues previously known only through correspondence. In too many cases the speakers read their papers to the pile of notes lying on the desk (this was a source of argument with a senior Hawaiian botanist, who contended that the speakers were reading their papers to the blackboard), instead of to the audience. Unfortunately, too many institutions and countries will not pay for a scientist's trip to a professional meeting unless the grantee presents a paper. This is not a desirable situation, since there are many benefits to be derived and contributions to be made even by mere attendance.

The receptions were delightful and well-organized. On the first Monday night a general reception for all Congress participants was held at three different hotels, because of the large size of the group. Most of the receptions, such as those hosted by the Governor of Tokyo, the Emperor, the Prime Minister, the President of Tokyo University, and various Ambassadors and Consuls were restricted to official delegates. The concluding reception, given by the President of Kyoto University, was held at the end of the tours and symposia which took place during the third week, and all participants were invited.

A splendid job of organizing Section V, Biology, was done by the Chairman, Dr. Hiroshi Hara, Professor of Botany, Tokyo University, and his colleagues, especially Professors Takasi Toyama and Misami Sato. Many tours were held for biologists, and three tours were organized for wives of participants.

Standing Committee on Pacific Botany:

Dr. F. Raymond Fosberg, Special Advisor on Tropical Biology to the Director of the Museum of Natural History, Smithsonian Institution, who has served as Committee Chairman for three terms has asked to be relieved of these duties. However, he will remain in office pending the appointment of a new Chairman by the President of the 11th Pacific Science Congress.

The Committee held two open meetings (August 22 and 29). Reports were presented by the different subcommittees at the first meeting. This Newsletter, incidentally, was mentioned as a source of information for current Pacific botanical bibliography. Dr. Maxwell S. Doty, Committee Secretary, was appointed chairman of the ad hoc Resolutions Committee (with Professors C.C.G.J. van Steenis and T. Hosokawa as members), and Alvin K. Chock, chairman of the pro temp Committee on Committee Functional and Organizational Matters and Standing Committee Chairman Nominations. Special reports on the Flora of Japan (English version), the Association for Tropical Biology, and the International Biological Program (IBP) were also presented at the first meeting.

After a lengthy discussion at the second meeting, the following subcommittees were approved: Pacific Plant Areas, Bibliography, Ethnobotany (including the former subcommittees on medicinal plants and vernacular names), Systematics and Evolution of Vascular Plants (to include the former Subcommittee on Plant Genetics and the fields of biosystematics, evolution, and anatomy), Ecology, Palynology, Vegetation Protection, Bryology and Lichenology, Algae, and Mycology. There was strong feeling that the Standing Committee should have a role in the organization of the botany meetings of future Congresses.

It was also proposed to the Pacific Science Council that each Standing Committees elect its own chairman rather than having him appointed by the Congress President; that the trend toward segregation by disciplines be reversed toward general benefits to all scientists (it was for example, difficult to meet fellow scientists in other disciplines or to even procure informational materials about the meetings of other sections); and that there be an interdisciplinary committee on small islands, with efforts made by international, governmental, and private organizations to protect such natural areas and to encourage descriptive studies of such natural ecosystems before they are irrevocably lost.

Resolutions were also proposed to the Congress by the Standing Committee.

An unihibited botanical view of Japan: Tokyo: the reverse in more ways than one of Kyoto ... Street names: almost non-existent ... the skillful kamikaze taxi drivers ... the "Establishment": those carefully laid plans which cannot be disturbed, modified, or changed ... Air conditioning: very essential, and fortunately, found in nearly all of the botany meetings ... Weather: "terrible," to quote a prominent Japanese scientist, and which we found to be true, with 90°+ temperature and 90%+ humidity ... Trains: very fast, fast, sort of fast, slow, and slower ... Western-style breakfasts: they use a microtome to slice the ham and bacon ... The Hotel New Otani, where the botanists stayed: the Japanese version of the Ilikai, but not as tall, and with a larger version of La Ronde; the hotel was elegant, but much more expensive than Waikiki, with the exception of the 10% gratuity charge attached to every meal and room check, the service was non-existent ... Western-style hotels: the only place where you can stretch your arms in the bathroom and skin your knuckles ... Japanese inns: lovely, with food one never saw before, but much more plentiful than in the Western-style hotels; wonderful personalized service; but there is the

proverbial problem with the blankets: to cover the feet or the chest? ... Height of door frames: average, 5'8" (what is going to happen when the next generation gets taller?), resulting in the development of scar tissue on the forehead and face of foreigners ... Japanese gardens: there appear to be more individual ones in Honolulu than Tokyo ... How to cross a street in a crosswalk: (1) wave the yellow flag provided in boxes near the cross walk; (2) if there are no yellow flags on your side of the street, it's better to start from the other side, but you can raise your arm and pray; (3) if you do not find any flags and cannot raise your arm, hold a child (we were lucky, we had two); (4) if none of the above are available, RUN ... Bar Ber (two words in Japan; if space is limited, then "Ber" will suffice): a wonderful "treatment"; for ¥ 400 (ca. $1.11) at a Bar Ber near Tokyo University (the cost was 300% more at the Hotel New Otani), you get a hair cut, scalp massage, shave, shampoo, more scalp massage, then neck and shoulders, with the entire process taking one hour ... Money: it disappears quickly ... Cameras: at least 50% of the foreign delegates bought one ... Suntory: Japanese version of scotch, and much cheaper ... Japanese food: both better and worse than in Honolulu ... Matches: they glow when extinguished ... Furo: a method of parboiling ... Pandanus: P. boninensis in greenhouses, and Harold St. John ... Streets: very narrow (ca. seven feet wide) with telephone poles in the pavement to complicate things ... Traffic: the right of way is dependent upon the size of your vehicle ... Tour bus seats (width): designed for Japanese, not Americans ... Street lanes: a waste of paint ... Toothpicks: splinters from wood carvings ... O-Shibori: a wonderful custom ... Hawaiian music: heard everywhere ... A beautiful country, an enjoyable experience ... There are a lot of Japanese in Japan.

NOTES ON THE 2ND INTERNATIONAL OCEANOGRAPHIC CONGRESS, MOSCOW, U. S. S. R.

Maxwell S. Doty [1]

The 2nd International Oceanographic Congress was held in Moscow from May 30 to June 6, 1966. This was a very fine Congress, although little news was reported in the field of primary productivity, the most botanical aspect of oceanography. Most papers were extensions of papers given previously, or the results of studies in new areas, which were rarely based on more than one cruise (i.e. time) period. There were essentially no new techniques reported. Dissolved organic matter received the most new mention and attention. Correlations between manganese and primary productivity; dissolved organic matter as a food source; and the leaching of dissolved organic matter out of cells being the cause of measured carbon-14 values below the real net photosynthesis rate seemed to be areas where the greatest advances were

[1] Department of Botany, University of Hawaii.

reported in botanical oceanography.

There is little in favor of "Intourist". Avoid their meal coupons for about one-half are useless and non-refundable. Actually if one devotes a great deal of time and patience they do seem to try hard to please, but "the system" and lack of authority (or the inflexibility of it) prevent their doing for one as much as they would often seem to like to do.

After the Congress I visited several scientific institutes in Leningrad. At the Arctic Institute there are over 500 workers. The principal duty is understanding sea ice in reference to navigation north of the Soviet Union. However, to this is added the job of coordinating all polar research and facilitating it as possible.

The Zoological Institute in Leningrad is one of seven institutes that are outgrowths of a royal museum established in 1714, and created in 1913 under the Academy of Sciences of the U.S.S.R. It employs about 130 people, including 32 at the Ph. D. level and 80 doctoral candidates. Among the interesting bits of information gleaned here: the most recent mammoths have been dated by the carbon-14 method, and found to be some 15,000 to 20,000 years old.

After a day of trying, a visit was made to the Komarov Botanical Institute. This institute has 700 employees, including 50 Ph. D.'s and 180 doctoral candidates. This institute contains one of the world's major herbaria. The phanerogamic collection contains over 5,000,000 specimens. I spent most of my time in the cryptogamic herbarium, which contains about 1,000,000 specimens, visiting with Dr. A.D. Zinova, and her assistant, Juri E. Petrov. Mr. Petrov is concerned with the systematic morphology of the brown algae. In the algal section of the herbarium the concentration seems to be on Northwest Pacific and Arctic algae. Among the significant collections located here are the Mertens herbarium, and the Postels and Ruprecht specimens from the Luetke expedition to Northwestern America.

THE ORGANIZATION FOR TROPICAL STUDIES

A.C. Smith [1]

The University of Hawaii became a member of the Organization for Tropical Studies (OTS) at the annual meeting of the Advisory Council and the Board of Directors on November 10 and 11, 1966. The OTS was established in 1963 by a consortium of universities to increase our understanding of tropical environments and to provide a scientific basis for their intelligent use by mankind. From 10 original member institutions the Organization has grown to 17 (including the three

[1] Department of Botany, University of Hawaii.

elected in November). The present members are:

Universities:

California
Connecticut
Costa Rica
Florida
Georgia
Harvard
Hawaii
Indiana
Kansas
Louisiana State
Miami
Michigan
Southern California
Texas A & M
Texas Technological College
Washington
and Smithsonian Institution

Nearly one-third the land area of the world lies between the Tropics of Cancer and Capricorn, but probably four-fifths of all existing species of plants and animals live in the tropics. Although tropical biotic communities include the most complex of all biological systems, little is known about them, and it is urgent that intensive multidisciplinary studies by made of tropical environments without delay. The OTS is neither a conservation nor a humanitarian organization; its central purpose is to acquire and disseminate a broad understanding of the tropical environments. It is a non-profit corporation (incorporated in the State of Florida) designed to promote training and research in tropical studies.

The OTS is managed by a Board of Directors of 17 members, elected by an Advisory Council that comprises two representatives of each member institution. The initial representatives appointed by the University of Hawaii are Vernon Brock (Department of Oceanography and Institute of Marine Biology) and A.C. Smith (Department of Botany). Current officers are: President, James S. Bethel (U. of Washington); Vice-President, Stephen H. Spurr (U. of Michigan); Secretary, W.J. Argersinger, Jr. (U. of Kansas); Treasurer, W. Henry Leigh (U. of Miami); and Executive Director, Stephen B. Preston. The program of the OTS is conducted by the Executive Director, who currently maintains a central administrative office at the University of Michigan and an operating center at the University of Costa Rica. Support is provided by entrance fees and annual assessments on member institutions, generously supplemented by Foundation grants. In the initial phases the teaching program has been supported by the National Science Foundation.

Although the OTS is not limited, by charter or intent, to biological efforts, its first major activity has been in tropical biology, and its first center of operation has been established at the University of Costa Rica. Existing field stations in Costa Rica are utilized as adjuncts to the University, and consideration is being given to additional stations outside of Costa Rica, for example in Panama and Honduras. The OTS has decided to move slowly in developing its own field stations, hoping to use existing installations when these are suitable. The possibilities of extending teaching institutes into Hawaii and perhaps other parts of the Pacific are now under discussion, and in this respect the University of Hawaii has a very direct interest in the development of the Organization.

Universitites do not benefit directly from OTS membership, since teaching institutes are open to all university students on a competitive basis. Nevertheless, membership is readily justified in the satisfaction derived from helping to expand knowledge, in the anticipated benefits to all mankind, in the increased breadth of their own educational programs as expanded by OTS courses, and in increased attractiveness to outstanding graduate students and visiting scientists.

The member universities, through OTS, have in effect set up a joint "department" of tropical studies which constitutes an extension of the activities of each. OTS courses may be listed in the catalogs of member universities as their own offerings. No tuition is charged for such courses, which are open to graduate students from all colleges and universities in the Americas. Successful applicants receive living expenses and round-trip transportation to Costa Rica from grant funds. They enroll in the University of Costa Rica, and their course records are automatically sent to their home institutions. Students at member institutions receive full hour and residence credit. Instruction is provided by visiting professors from universities and other institutions throughout the Americas. Courses are now given in two eight-week sessions, the first in February and March during the Costa Rican dry season, and the second in July and August during the rainy season. Each course has two or more full-term instructors, several visiting scientists for shorter periods, and lecturers from local institutions. The courses are strongly field-oriented and emphasize aspects of science that can be studied only in the tropics.

The current "basic" course deals with Tropical Biology: an Ecological Approach. This is offered twice each year for the full two-month period, provides 8 hours credit, and is limited to 20 participants. Advanced biological courses, also for 8 hours credit but limited to 10 students, have been offered in Tropical Forest Ecology, Biology and Evolution of Tropical Insects, Morphology and Biology of Tropical Monocotyledons, Biology of Tropical Epiphytes, Biology of Tropical Vertebrates, and Biology of Tropical Grasses. In 1967 advanced courses will be offered in Biology of Tropical Pteridophytes and Insect Ecology in the Tropics. Opportunity is also provided for student research and independent study, as well as for seminars, symposia, and conferences.

The OTS is very young, but its potentialities for the promotion of science and human welfare are great. A developing research program, about to be added to the very successful graduate training program, will permit the Organization to achieve the balance of activities through which its objectives can be accomplished.

The above notes in large part have been abstracted from "The Program of Tropical Studies and Research of the Organization for Tropical Studies, Inc." (August 1966).

BOOK REVIEW

Whitmore, T.C. Guide to the Forests of the British Solomon Islands.

xi + 208 pp. Oxford University Press. 1966. 40/.

As many members of the Hawaiian Botanical Society are interested in Pacific floras in the broad sense, it is appropriate to call attention to a highly significant book dealing with certain aspects of the Melanesian flora. Whitmore's book is Forest Record No. 2 of the Forestry Department, British Solomon Islands Protectorate; No. 1 in this series is F.S. Walker's The Forests of the British Solomon Islands Protectorate (1948). While the new book in no sense aspires to be a complete flora of the Solomon Islands, it definitely succeeds in its purpose: to provide in compact format basic information of value to botanists and foresters. It is refreshing to find, for a very inadequately explored part of the world, so excellent and informative a botanical treatment.

Introductory pages discuss the Melanesian flora, followed by non-technical descriptive notes that should make the book useful to readers other than scientists. The middle section of the book is directed toward practical foresters; in it about 60 of the common big trees (over 6 ft. girth) of the Solomons are very adequately described and keyed, often with effective line illustrations. An extremely practical section of the book deals with the Kwara'ae language. Although Kwara'ae is only one of 99 distinct languages recorded in the Solomons, the Malaita people who use it are great travelers and possess a significant botanical knowledge, and their terms for plants are used widely in the archipelago. A surprising number of about 600 vernacular names, each with one or more botanical equivalents, is placed on record.

For botanical users, perhaps the most valuable part of the book is the check list of plants (pteridophytes and spermatophytes) recorded from the Solomons. In alphabetical sequence approximately 2,000 binomials are listed (with Kwara'ae equivalents if known). Some duplication certainly exists because of synonymy, but in any case this list is surprisingly extensive and will provide a sound starting point for a floristic study. The authorship of names is meticulously provided; when the name is typified by a Solomon Islands plant it is printed in boldface and in these cases a full bibliographic citation is given.

The book is tastefully bound, with end-page maps. It is a pleasure to indicate the indebtedness of the international botanical public to the author for the excellence of this initial step toward a flora of the Solomons. Dr. Whitmore, now at the Forest Research Institute at Kepong, Malaya, carried out the basic work for his book while serving as Forest Botanist at Honiara, Solomon Islands. (A.C. Smith).

NEW BOTANICAL PUBLICATION: The Botany Department of the University of Hawaii has recently initiated publication of a new series of papers, to be called HAWAII BOTANICAL SCIENCE PAPERS. No. 1, which appeared in June 1966 is entitled Improvement and Application of Benthic Algal Isotope Productivity Measuring Methods by Maxwell S. Doty. No. 2, which is also dated June 1966 is the Atlas for Bioecology Studies in Hawaii Volcanoes National Park which is described below.

This series will appear at irregular intervals in the future. Its major purpose is to provide an opportunity for quick publication of observations and experimental results which, while worthy of publication, are too lengthy to be printed in the standard professional journals without great delay. Distribution will be made to the major scientific libraries. The series is in mimeographed form with photo-offset reproduction of illustrations.

ATLAS FOR BIOECOLOGY STUDIES IN HAWAII VOLCANOES NATIONAL PARK, by Maxwell S. Doty and Dieter Mueller-Dombois. Hawaii Botanical Science Paper No. 2: iii & 507 pp. 1966.

In late 1963 certain members of the Department of Botany, University of Hawaii, under the direction of Maxwell S. Doty, began a biological and ecological study of Hawaii Volcanoes National Park, at the request of the Western Region, National Park Service, U.S. Department of the Interior, which supplied most of the funds for the study. The original purpose of the study was to assemble all the available information which would be needed by anyone undertaking biological and, especially, ecological studies in the Kilauea region of the island of Hawaii. The Atlas which has resulted from the study includes not only this information, but reports several new observations, the most extensive of which are summarized in complete vegetation and soils maps of the area. As a base, 53 aerial photographs were selected from the different photoreconnaissance missions that have been flown over the Park area. These were obtained in 27 by 27 inch form and two transparent overlays made for each. One of the overlays bears topographic and other geographic and political information. The second overlay is the vegetation map.

It must be announced with regret that far too few copies of the manuscript were produced to permit general distribution, and it is especially unfortunate that the great expense of hand-producing the overlays prevented the production of more than two sets of aerial photographs and overlays (which, incidentally, must weigh nearly 50 pounds per set). However, one set will be kept at Park Headquarters and the other in the Botany Department of the University of Hawaii, where they will be available for inspection by anyone doing scientific work in the park. Already a number of people from Hawaii and from the mainland have begun utilizing this assemblage of information. Several graduate students at the University of Hawaii have undertaken ecological theses as a result of the availability of this information.

Thus, there is now assembled in one book a summary of, and references to, all the published biological and ecological information on the park. An outline of the

contents includes:

Sources and directions for obtaining maps and aerial photos; a brief report on the geological history of the Park; weather and climate of the Park and surrounding areas; soils; check lists of organisms found in the Park; vegetation areas in the Park; development of new populations on lava flows; vegetational responses to volcanic activity; marine communities in the Park; bibliography; generic index to Park organisms and sources of information about them.

Several individuals have contributed sections to the Atlas, including F.R. Fosberg, Chester K. Wentworth, Garrett Smathers, Andrew Berger, and Charles Lamoureux. Dr. Fosberg has provided a completely revised checklist of the vascular plants known from the Park.

The Park Service is to be commended for initiating and funding the project which has resulted in this Atlas. In turn, the Atlas can serve as a basis for both 1) the immediate development of plans for protecting and managing the Park in such a way as to best preserve its natural features, and 2) the development of a research plan for the Park which will enable scientists to fill in many of the gaps revealed by the Atlas. Drs. Doty and Mueller-Dombois should be congratulated for bringing all this information together in readily usable form.

It is hoped that before long the Atlas can be produced in such a form as to make it more available to the general public than it is now. (C.H. Lamoureux)

B O T A N I C A L S O C I E T Y N E W S N O T E S

Honolulu Botanic Gardens (SN): Dr. Roger E. O'Connor is the new president of the Friends of Foster Garden. Other new officers are: Mrs. Boyd MacNaughton, first vice-president; James C. Hubbard, second vice-president; Ted W. Damron, corresponding secretary. New trustees are Dr. Robert Ballard, Mrs. Mabel Babcock, and Dr. Donald P. Watson. Special "Friend of the Year" recognition awards were presented to Mrs. Babcock and John Obata at the annual meeting.

Pineapple Research Institute (JBS): The following professional people on the staff have left, or are leaving the Institute. Their future addresses may be of interest to members of the Hawaii Botanical Society. Dr. G.G. Dull, Agricultural Research Service, Human Nutrition Research Division, Beltsville, Md.; Dr. H.W. Gardner, Botany and Plant Biochemistry Dept., University of Calif. at Los Angeles, Los Angeles, Calif.; Dr. R.W. Leeper, Amchem Products, Inc., Ambler, Pennsylvania.

Plant Quarantine Division, ARS, USDA (ETT): The following inspectors have left the port of Honolulu. Carroll Jones transferred to Norfolk, Virginia, and David Gushikuma and David H. Girard to Jamaica, New York. Boyd Holdaway resigned to further his education at the University of California at Riverside in the field of plant pathology. James Binando transferred to the Bureau of Land Management at Casper, Wyoming. All of these men had been in Honolulu two years. On the plus side, Donald Richards transferred to Honolulu from Laredo, Texas.

University of Hawaii

Dept. of Horticulture (SN): Dr. Donald P. Watson has been appointed chairman of the Dept. of Horticulture at the University of Hawaii. He will direct research activities and undergraduate and graduate teaching programs in tropical horticulture. The new chairman is a trustee of the American Horticultural Society and Friends of Foster Garden, in addition to being a member of the Hawaiian Botanical Society. Originally from Canada, Dr. Watson studied at the University of Toronto and Cornell University before coming to Hawaii as a visiting professor in 1963.

Dr. Richard T. Poole has joined the Dept. of Horticulture, University of Hawaii. He will be with the Agricultural Experiment Station, and do research in ornamental horticulture. Before coming here, he was in the ornamental horticulture department at the University of Florida, Gainesville for five years. He received his masters in ornamental horticulture and Ph. D. in botany at the same university.

Dept. of Botany (CHL): Dr. Albert C. Smith, Wilder Professor of Botany, has been named president-elect of the Association for Tropical Biology for 1966-67. He will assume the office of president next year.

Dr. Smith attended an international congress of the Association at the University of Para, Brazil, in June, where he delivered a paper on the presence of primitive Angiosperms in the Amazon Basin and its significance in indicating past migrational routes. At present he is organizing a symposium to be held by the Association at the University of Hawaii in June 1968.

B.P. Bishop Museum (AKC): Douglas E. Yen was appointed Ethnobotanist in the Department of Anthropology in July. He was born in Wellington, New Zealand, and received his M.Agr. after attending Victoria University and Massey University. His previous position was In Charge, Vegetable Breeding Station, Crops Research Division, DSIR, Otara, New Zealand. He was associated with the DSIR for 18 years. His fields of specialization include evolution, cytogenetics, and plant breeding. Yen received three grants from the Rockefeller Foundation for studies of sweet potato in the Pacific. Field work was conducted from 1957-64 in Thailand, New Guinea, Peru, Ecuador, Colombia, Bolivia, Philippine Islands, Ryukyu Islands, Japan, Melanesia, Easter Island, Central Polynesia, Eastern Polynesia, and New Caledonia, and experimental work at the N.Z. station. These studies on sweet potato variation were made to determine the relationships between plant and human movements. He has also done work on taro cytology with respect to agricultural systematic descriptions and interpretations.

Hawaiian Botanical Gardens Foundation (C.E. Hartt): The Hawaiian Botanical Gardens Foundation, Inc. at its meeting in September adopted a proposal to establish a fund to provide financial assistance for graduate research in Botany at the University of Hawaii. Graduate students in Botany are frequently required to travel to the Neighbor Islands to conduct research in the field, and in many cases this has created financial problems. The Hawaiian Botanical Gardens Foundation research grants are

designed primarily to help defray such expenses. The maximum amount awarded to any student in a year will be $100. Financial support will be limited to students who have worthy projects, who do not have recourse to other appropriate funds, and who are graduate students formally registered in the Department of Botany, University of Hawaii. The project, to qualify, must be related to studies for an advanced degree, and must be directed toward the eventual production of publishable research. Appropriate budgetary items are travel to Neighbor Islands and living expenses while in the field. Interested students may obtain applications from Dr. N.P. Kefford, Chairman, Department of Botany, University of Hawaii.

Also at the September meeting the Hawaiian Botanical Gardens Foundation, Inc. passed a resolution urging that State-owned land in Makiki Valley be transferred to the University of Hawaii for teaching and research in plant science, and that the area be maintained as a green belt.

At Large (AKC): Dr. Richard S. Cowan was appointed Director of the Museum of Natural History, Smithsonian Institution. Prior to his appointment as Director he was Assistant Director. Cowan was a one-time Graduate Assistant in Botany at the University of Hawaii, and wrote a taxonomic revision of the endemic genus Neraudia (Urticaceae).

Dr. Warren H. Wagner, Jr., Professor of Botany and Director of the Botanical Garden, University of Michigan, was elected President of the American Society of Plant Taxonomists. Wagner is a specialist in ferns, and has a special interest in those found in Hawaii.

ANNUAL REPORT OF THE SECRETARY FOR 1966

In 1966 the Society took an active part in the Mayor's Action for Beautification Committee, the State Federation for Natural Beauty in Hawaii, and the park proposals for Kawainui Swamp. No award was made for the Outstanding Botany student, nor in the Senior Division at the ISSEC Science Fair. Winner of the Intermediate Division Wish Award was Mr. Terry Mau of Haiku School, Maui with Honorable Mention to Miss Laura Nishiyama of Kula Elementary School, Maui. About 35 persons joined the Oahu Summer Foray on the Manoa Cliff Trail led by Mr. Tom McGuire, Dr. Dan Palmer, and Dr. Adrian Brash. Dr. Mueller-Dombois led another foray the same day on the island of Hawaii in the Volcano area. At the April and November meetings, Dr. Robert Warner conducted the plant donation raffles for the refreshment fund.

At the regular meetings during the year, the following papers were presented:

January 3 "Observations concerning the distribution of Polysiphonia and related genera," by Dr. George Hollenberg, Stanford University.

February 7 "Citrus Ecology in Japan," by Dr. Robert M. Warner, Department of Horticulture, University of Hawaii.

March 7 "Grasses--An Agronomist's View," by Dr. Peter Rotar, Department of Agronomy, University of Hawaii.

April 4 "Native Andean Food Plants," by Dr. Melvin L. Bristol, Department of Botany, University of Hawaii.

May 2 "The shoot apical meristem with emphasis on recent experimental studies," by Dr. Clifford W. Smith, Department of Botany, University of Hawaii.

June 6 "Plants, Climate, and Phytotronics," by Dr. Noel P. Kefford, Chairman, Department of Botany, University of Hawaii.

October 3 "Horticultural plants of Thailand, including native orchids," by Dr. Harry Kamemoto, Department of Horticulture, University of Hawaii.

November 7 "The Pineapple Research Institute and Botanical Research in Hawaii," by Miss Beatrice H. Krauss, Pineapple Research Institute.

December 12 "Comparison of East Flank Vegetations on Maunaloa and Mauna Kea," by Dr. Dieter Mueller-Dombois, Department of Botany, University of Hawaii, Retiring President.

On January 1, 1966, the Society had 305 members. During 1966, 28 members were dropped and 41 new members were added, giving a total membership of 318.

Respectfully submitted,

R.W. Hartmann
Secretary, 1966

ANNUAL REPORT OF THE MEMBERSHIP COMMITTEE FOR 1966

During the period from January 1, 1966 to December 12, 1966, 40 individuals were accepted into membership of the Society. Of these, 8 were faculty members of the University of Hawaii, 17 were University Graduate Students and 13 were from other fields of endeavor. Three organizations also became members. Those dropped from membership were a total of 28. Total membership at the beginning of the year was 305 and at the end of the year the net total was 318. The new members for 1966 are listed below in the order in which they were elected:

1. Mr. Norman K. Carlson
2. Dr. Noel P. Kefford
3. Mr. Paul R. Schultz
4. Dr. Melvin Lee Bristol
5. Dr. Clifford Winston Smith
6. Mrs. Flora Rice
7. Mr. Richard P. Haynes
8. Mr. Paul Yamanaka
9. Mr. Lewis Cooksey
10. Mr. Suraphong Kosiyachinda
11. Mr. William S. Null
12. Mr. Bongho Choe
13. Mr. Masanobu Tara
14. Mr. Antonio T. Perez
15. Mr. James Murphy
16. Miss Phyllis Ann Bond
17. Mr. Francisco B. Aguon
18. Mr. Herman Baumann
19. Mr. Ramon Barba
20. Mr. John C. Elliott
21. Mr. Richard T. Sakuoka
22. Mr. Umporn Suwvnnamek
23. Mr. Kuan-hon Chow
24. Mr. Samuel A. Adenikinju
25. Dr. Gary R. Stringam
26. Mr. Douglas E. Yen
27. Mr. H. Ron Hurov
28. Dr. Richard T. Poole
29. Dr. Ivan Buddenhagen
30. Dr. E.H. Walker
31. Mr. Herbert C. Shipman
32. Mr. Fredrick Weld
33. Dr. Richard M. Bullock
34. Mr. William S. Sakai
35. Mr. Robert E. DeWreede
36. Miss Jane R. Mihata
37. Dr. David E. Keck
38. Miss Amy B.H. Greenwell
39. Hawaii Natural History Assn.
40. Haleakala National Park
41. National Arboretum
42. Dr. Patrick D. Dalton
43. Mr. John "Jack" King

Respectfully Submitted,
Membership Committee

Robert M. Warner, Chairman
Beatrice Krauss
George W. Gillett

REQUEST FOR MATERIAL:

Dr. Yrjö Mäkinen is studying the rust, smut, and powdery mildew fungi which cause diseases on many native and introduced Hawaiian plants. He would appreciate it if the members of the Hawaiian Botanical Society would notify him of the occurrence of these fungi. Because of the difficulties involved in identification, all information should be accompanied by specimens (one diseased leaf is enough). Dr. Mäkinen would especially like rust specimens from carnations, chrysanthemums, corn, onions, pelargonium, and roses. All of these are known to occur in Hawaii but are rarely collected. All specimens and information may be sent to him in care of the Department of Horticulture, University of Hawaii, 1825 Edmondson Road, Honolulu 96822, or they may be sent directly to his present address, Department of Botany, University of Turku, Turku 2, Finland.

CORRECTION:

In the last number of this Newsletter (Vol. V, No. 3, p. 32), in the obituary for Dr. Earl Edward Sherff, the date of Dr. Sherff's birth was incorrectly cited as May 18, 1866. The correct date of his birth was May 18, 1886.

NOTICE:

During the 11th Pacific Science Congress which recently took place in Japan, four ½ hour programs were run on the Tokyo TV Science Channel. These dealt with the following: 1. The human population problem; 2. Air pollution; 3. Fish productivity of the sea; 4. Nature conservation.

The last topic was essentially botanical ecological and included a discussion of Mauna Loa vegetation and a general comparison with the vegetation of the Japanese Alps. Dr. Dieter Mueller-Dombois was one of the participants in this program. The complete film strip with sound track was sent to HETV, Channel 11, Honolulu, and is now in the hands of Mr. Ebelin, the program coordinator. There is a chance that this program could be shown locally by translating the portions which are in Japanese. This will probably be done, however, only if sufficient interest is expressed. If you are interested in seeing this program it is suggested that you contact HETV and indicate your interest. (D. M-D.)

OFFICERS FOR 1967

At the meeting of December 12, the following were elected as officers of the Hawaiian Botanical Society for 1967:

President: Dr. A.C. Smith
Wilder Professor of Botany, University of Hawaii

Vice-President: Dr. Yoneo Sagawa
Department of Horticulture, University of Hawaii

Secretary: Dr. Richard U. Hartmann
Department of Horticulture, University of Hawaii

Treasurer: Mr. William M. Bush
Executive Vice-President, Castle & Cooke, Inc.

Directors: Dr. Gladys E. Baker
Department of Botany, University of Hawaii

Dr. Henry Y. Nakasone
Department of Horticulture, University of Hawaii

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01540 6911

HAWAIIAN BOTANICAL SOC.
c/o Department of Botany, University of
2450 Campus Road, Honolulu, Hawaii 96822

OFFICERS

PRESIDENT....Dieter Mueller-Dombois
(Dept. Botany, Univ. Hawaii)
VICE-PRESIDENT.....Gladys E. Baker
(Dept. Botany, Univ. Hawaii)
SECRETARY.....Richard W. Hartmann
(Dept. Horticulture, Univ. Hawaii)
TREASURER.....William M. Bush
(Castle & Cooke, Inc., Box 2990, 96802)
DIRECTORS.....James L. Brewbaker
(Dept. Horticulture, Univ. Hawaii)
.....John Warner
(Dept. Genetics, HSPA Expt. Sta.)

EDITORIAL STAFF

EDITOR.....Charles H. Lamoureux
(U.H. Botany)
ASSOCIATE EDITOR.....C.R. Long
(U.H. Botany)
ASSISTANT EDITOR (News)..Shinya Namiki
(Plant Quarantine Division-ARS-USDA)
NEWS REPRESENTATIVES:
Bishop Museum.....Harold St. John
Haw'n Bot. Gard. Found..Constance Hartt
HSPA Expt. Sta.....Louis G. Nickell
Honolulu Botanic Gard.....Paul Weissich
Orchid Growers & Societies..Oscar Kirsch
Plant Quar. Div.-ARS-USDA..Edward Tsugita
Pineapple Res. Inst.....Jimmie Bob Smith
University of Hawaii.....Noel P. Kefford
(Botany), Shosuke Goto (Col. Trop. Agric.), Robert M. Warner & Donald P. Watson (Horticulture), Minoru Aragaki (Plant Pathology), Edison Putman (Plant Phys.), George W. Gillett (H.L. Lyon Arboretum).

THE HAWAIIAN BOTANICAL SOCIETY was founded in 1924 to "advance the science of Botany in all its applications, encourage research in Botany in all its phases," and "promote the welfare of its members and to develop the spirit of good fellowship and cooperation among them." "Any person interested in the plant life of the Hawaiian Islands is eligible for membership in this Society."

HAWAIIAN BOTANICAL SOCIETY
c/o Department of Botany
University of Hawaii
2450 Campus Road
Honolulu, Hawaii 96822

BLK. RT. ADL. 3/8¢ PD.
HONOLULU HAWAII
U.S. POSTAGE
02½
METER P.B. 179049

DR. F. RAYMOND FOSBERG
PACIFIC VEGETATION PROJECT
% NATIONAL RESEARCH COUNCIL
2101 CONSTITUTION AVE., N.W.
WASHINGTON 25, D. C.

Please Post